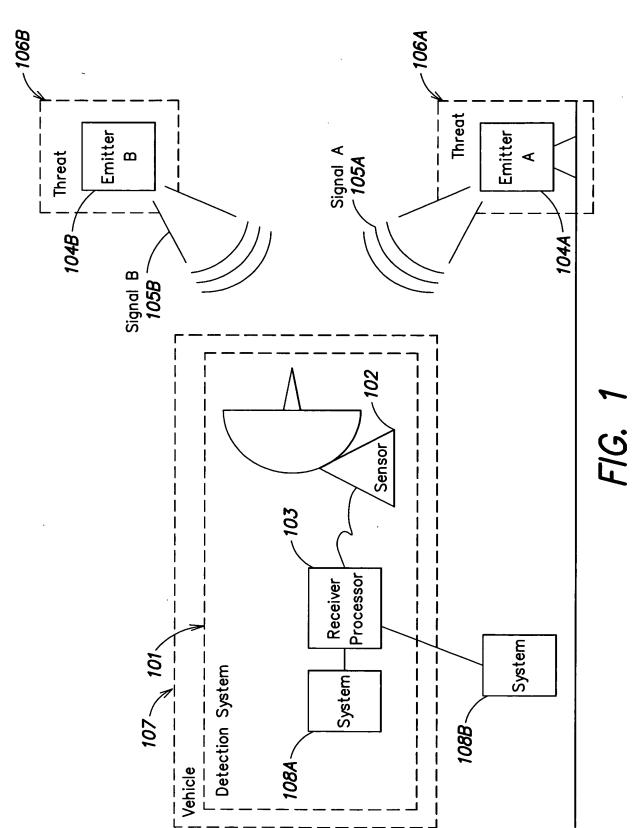
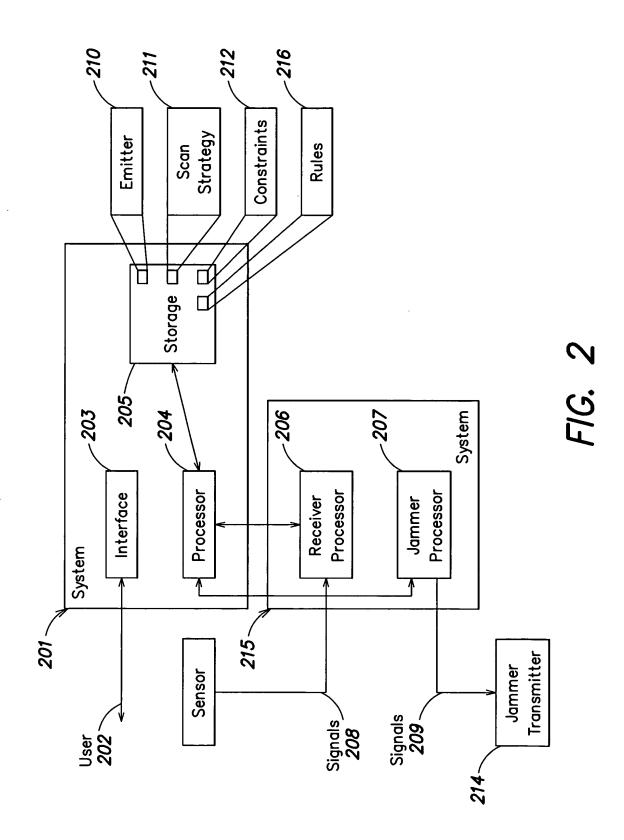


Rules GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00



GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00



Rules

GOUNALIS, Anthony J. Serial No.: 10/675,542

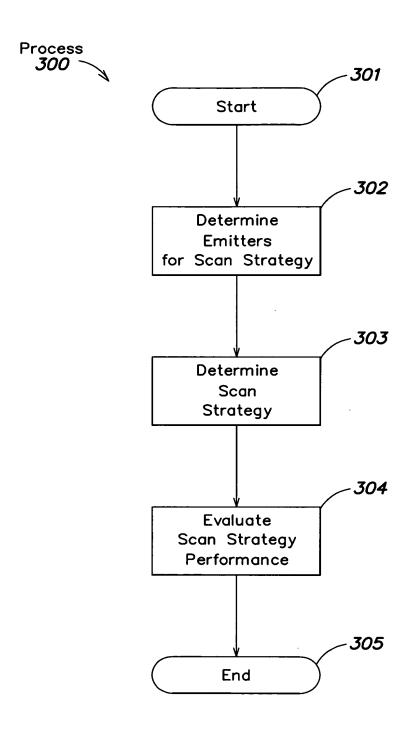


FIG. 3

GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

| | | | Emitter Database 02 401 | Emitter Entry 403 |
|---|------------------|----------------------|-------------------------------|--------------------------------|
| 1 | | Emitter | Parameters | ľ |
| | Emitter Model | Dwell Solution(s) | Constraints | Rules |
| | | | • | |
| N | | | | |

FIG. 4

GOUNALIS, Anthony J. Serial No.: 10/675,542

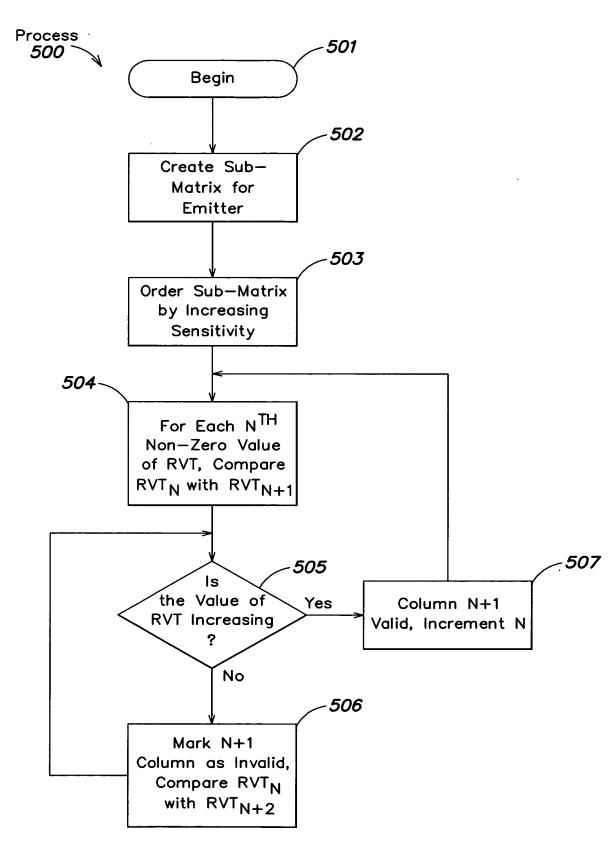
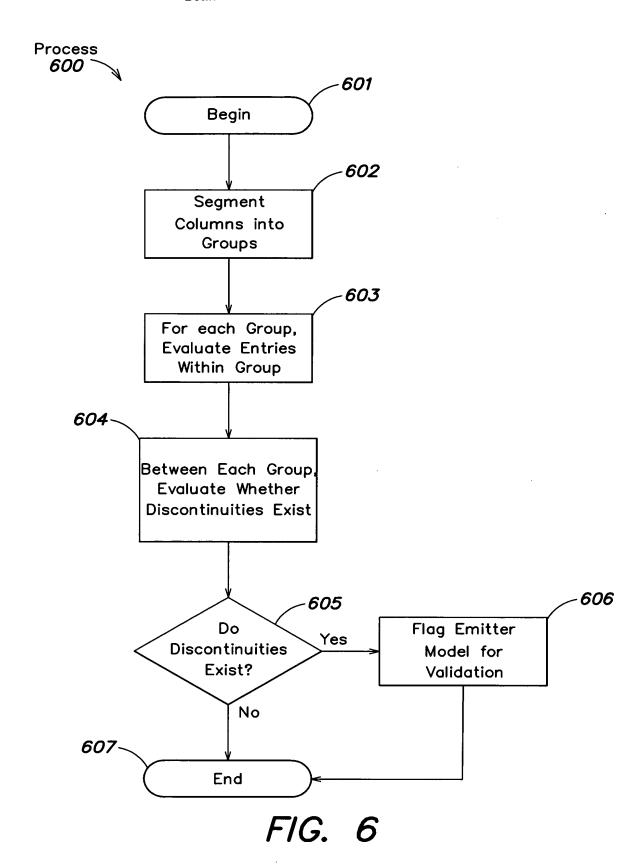
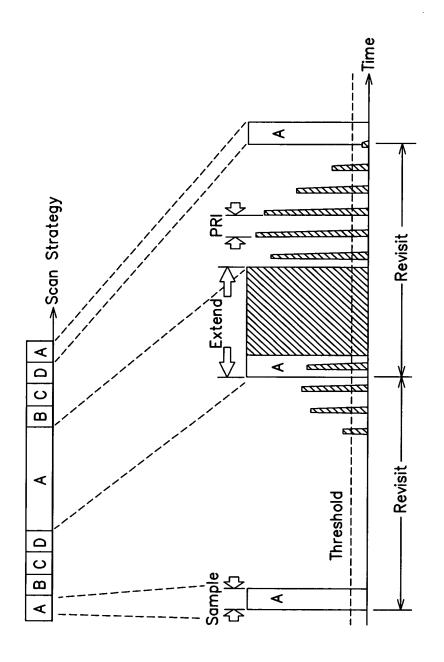


FIG. 5

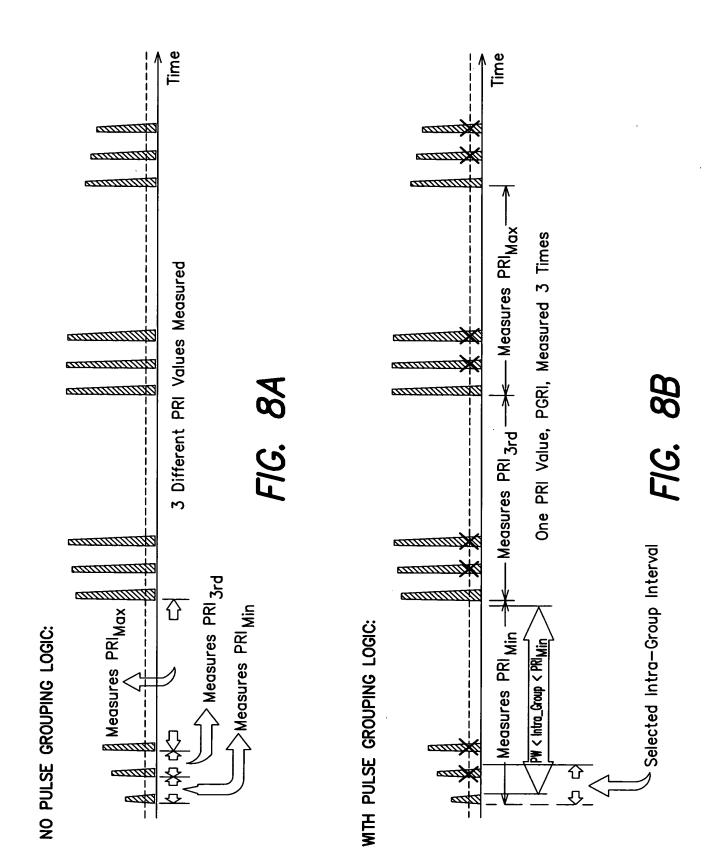
GOUNALIS, Anthony J. Serial No.: 10/675,542



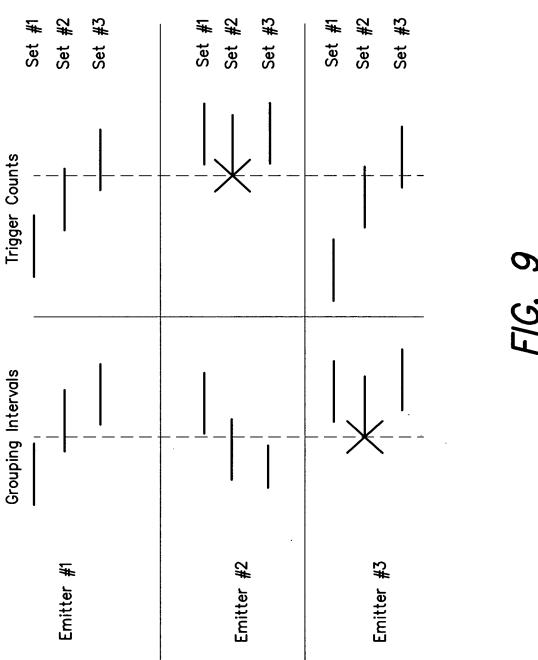
Rules GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00



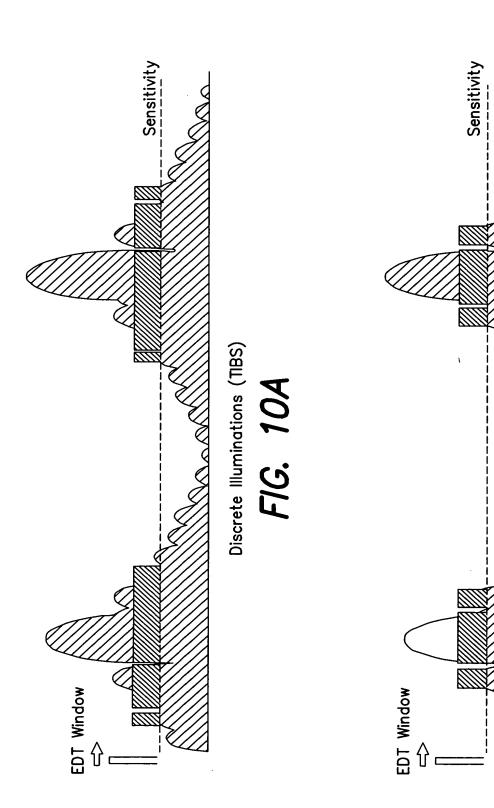
GOUNALIS, Anthony J. Serial No.: 10/675,542



GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00



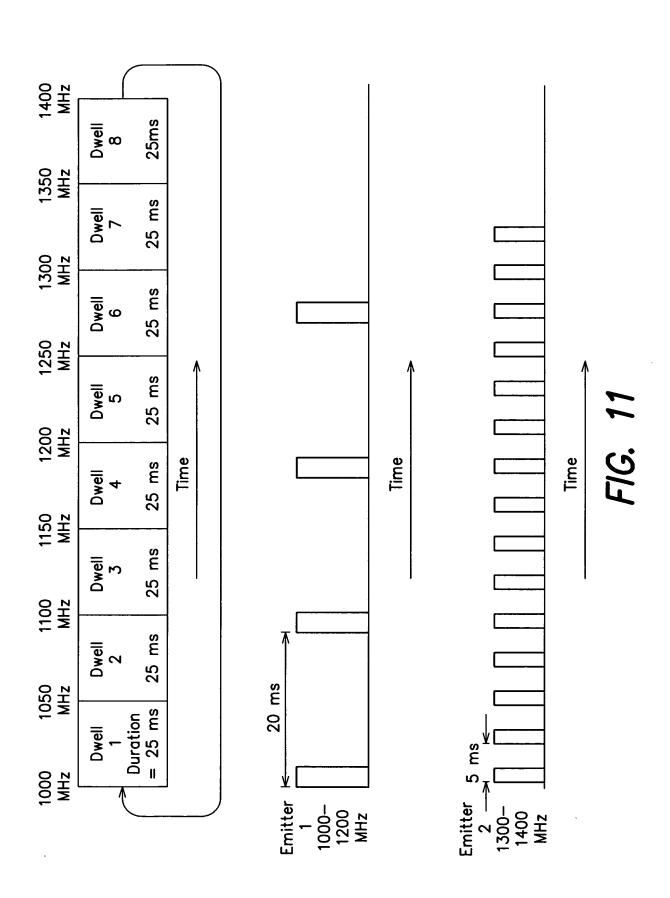
GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00



Discrete Illuminations (TIBS)

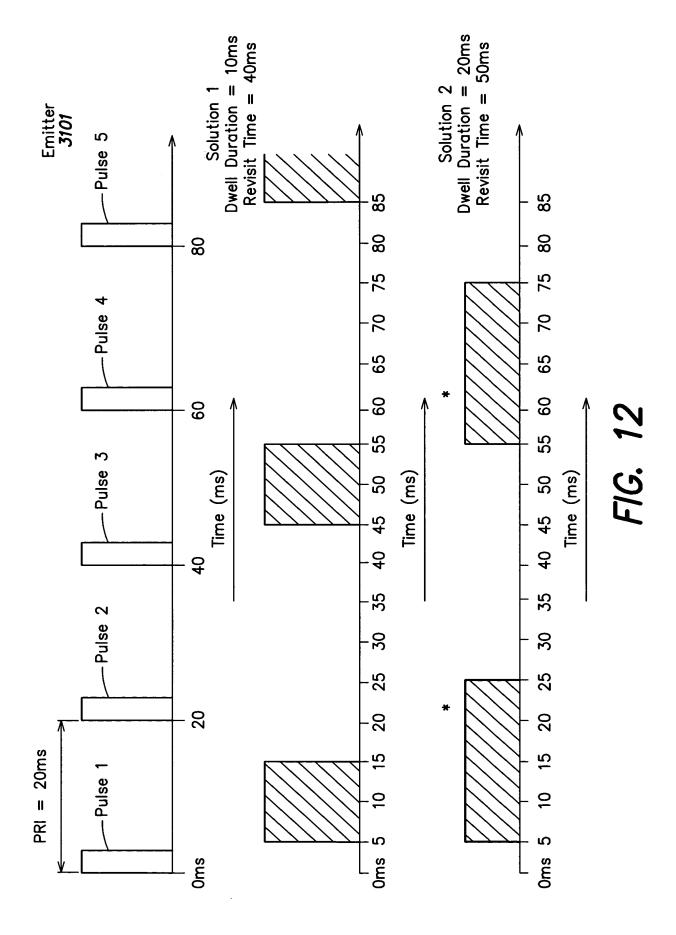
FIG. 10B

Rules GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00



GOUNALIS, Anthony J.

Serial No.: 10/675,542 Docket No.: L0562.70038US00



GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

| Min MDT (ms) | 3 | တ | 2 | 4 |
|--|--------|--------|--------|--------|
| RF Max (MHz) | 1300 | 1350 | 1810 | 1860 |
| RF Min (MHz) | 1000 | 1220 | 1510 | 1730 |
| Detecting Method 2 30MHz IF/ 15MHz VBW RVT | 650 ms | 280 ms | 330 ms | 390 ms |
| Detecting Method 1 250MHz IF/ 15MHz VBW RVT | 100 ms | 120 ms | 110 ms | 130 ms |
| Emitter Name | E1 | E2 | E3 | £4 |

GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

| | | , de 14.14.0 | - uonnioc | | | | c co:+:: -0 | 2 101200 | Total | cost 31/650 ≈ .048 |
|------|---------|----------------|-------------------|--------------------|-----------|---------|-------------------|----------|-------|------------------------------|
| 1250 | | | |] | 0 1270 | Dwell 9 | DD Max 5 | RVTMin | 650 | + Cost = 5/650 |
| | | | | | 1210 1240 | Dwell 8 | DD Max 5 | RVTMin | 650 | + Cost + 5/650 |
| | | | | | 1180 12 | Dwell 7 | DD _{Max} | RVTMin | 650 | + Cost 3/650 |
| | | | | 05 | 1150 1 | Dwell 6 | DD Max | RVTMin | . 650 | + Cost + Cost 3/650 3/650 |
| | Dwell 1 | $DD_{Max} = 5$ | $RVT_{Min} = 100$ | Cost = 5/100 = .05 | 1120 11 | Dwell 5 | DD _{Max} | RVTMin | 650 | + Cost 3/650 |
| | ۵ | MOO | RVT | Cost : | 1090 11 | Dwell 4 | DD Max 3 | RVTMin | 650 | + Cost 3/650 |
| | | | | | 1060 10 | Dwell 3 | DD Max | RVTMin | 650 | + Cost 3/650 |
| | | | | | 1030 10 | Dwell 2 | DD Max | RVTMin | 650 | + Cost - 3/650 |
| 000 | | | | | 000 | Dwell 1 | DD Max | RVTMin | 650 | Cost + 3/650 |

330 ms

ä

330

SE E

330

ШS

330

a E

330

a E

330

330 ms

330 ms

330 ms

Rules GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

| 15 | 1510 | | | | | | | | 1760 | |
|----------|-------------|---------|-------------|------------------|----------------------------------|---------|-------------------|-----------|--------------------|-----------|
| | | | | Ó | Dwell 1 | | | | | |
| | | | | DDMc | $DD_{Max} = 4 ms$ | Ø | | | | 1 1 1 0 |
| | | | | RVT _N | $RVT_{Min} = 330 \text{ ms}$ | SE. | | | | Solution |
| _ | | | | Cost = | Cost = $4/330 = .01\overline{2}$ | 012 | | | 7 | |
| <u>5</u> | 1510 15 | 1540 15 | 1570 16 | 1600 16 | 1630 16 | 1660 16 | 1690 17 | 1720 1750 | 0 1780 | |
| - | Dwell 1 | Dwell 2 | Dwell 3 | Dwell 4 | Dwell 5 | Dwell 6 | Dwell 7 | Dwell 8 | Dwell 9 | |
| | DD Max 2 | DD Max | DD Max 2 | DD Max 2 | DD Max 2 | DD Max | рр _{Мах} | DD Max | DD Max | c citilos |
| | RVTMin | RVTMin | RVTMin | RVTMin | RVT _{Min} | RVTMin | RVTMin | RVTMin | RVT _{Min} | 7 |

Rules

GOUNALIS, Anthony J. Serial No.: 10/675,542

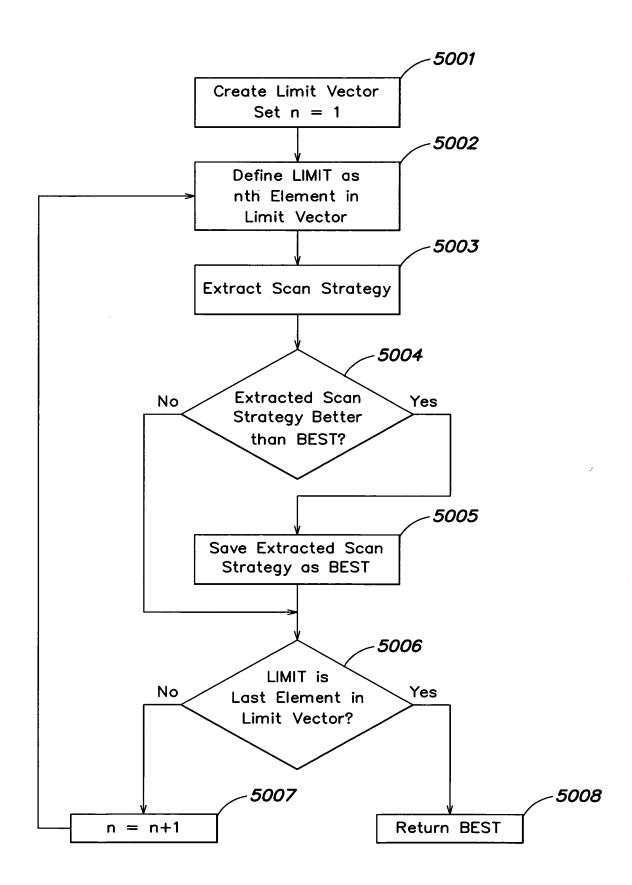


FIG. 15

Rules

GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

6001 -6009 Find the Detecting Method, M2, Which Set MinFREQ= Yields the Lowest LIMIT Cost for the Emitters in DX 6003~ 6011 Define Set D as Define Cost 1 as Cost of D Using "core" Emitters Based on MINFREQ Method Plus Cost of DX Using M2 and METHOD 6005-6012 Find the Detecting Add to D any Method, M3, Which "free" Overlapping Yields the Lowest **Emitters** Cost for the Emitters in Set D 6014 6007~ Define Cost 2 as Define Set DX as Cost Using M3 for Any Emitters in the Emitters in Set D the Frequency Range of D Not Plus Cost of Using Detectable by METHOD M2 for Emitters in DX -6013 Yes No Cost 2 < Cost 1 6015 **Build Dwells Build Dwells** for D Using for D Using METHOD and M3 and **MinFREQ MinFREQ**

FIG. 16

6017

System And Method For Detection Of Emitter Signals Using Multiple Intercept Rules GOUNALIS, Anthony J. Serial No.: 10/675,542

| Name | RF Min | RF Max |
|------|--------|--------|
| E1 | 1100 | 1200 |
| E2 | 1150 | 1250 |

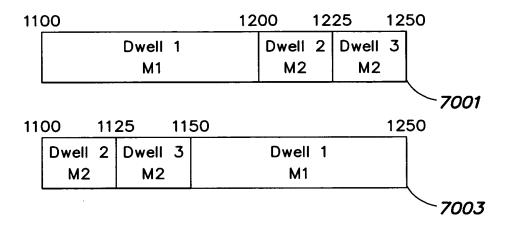


FIG. 17

Rules

GOUNALIS, Anthony J. Serial No.: 10/675,542

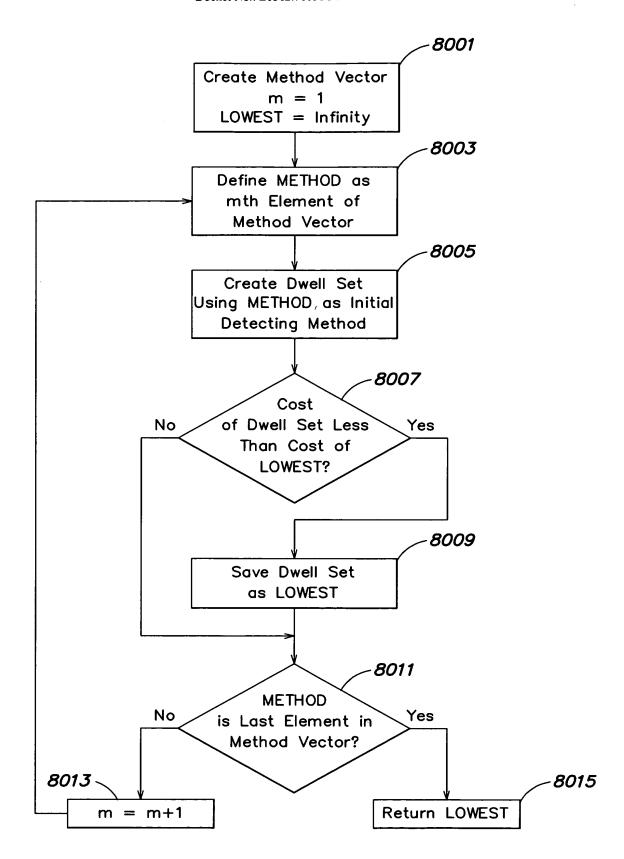


FIG. 18

GOUNALIS, Anthony J. Serial No.: 10/675,542

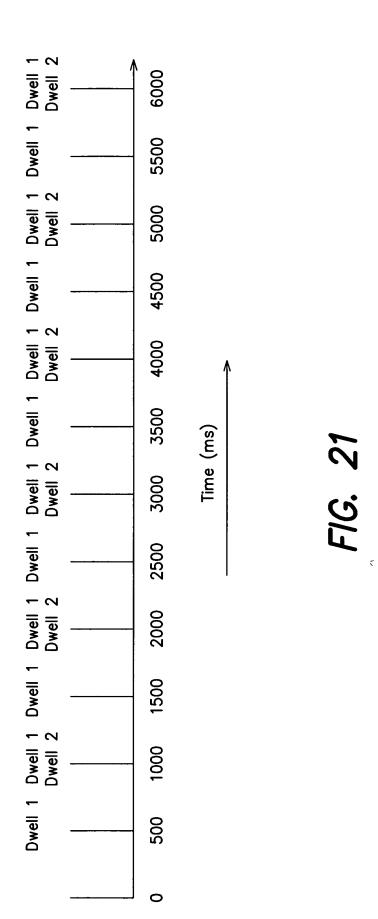
| Emitter | Dwell Duration (ms) | Revisit Time (ms) |
|-----------|---------------------|-------------------|
| Emitter 1 | 1 | 500 |
| Emitter 2 | 2 | 1200 |

FIG. 19

| Emitter | Dwell Duration (ms) | Revisit Time (ms) | Cost |
|-----------|---------------------|-------------------|------|
| Emitter 1 | 1 | 500 | .002 |
| Emitter 2 | 5 | 1000 | .005 |

FIG. 20

GOUNALIS, Anthony J. Serial No.: 10/675,542



GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

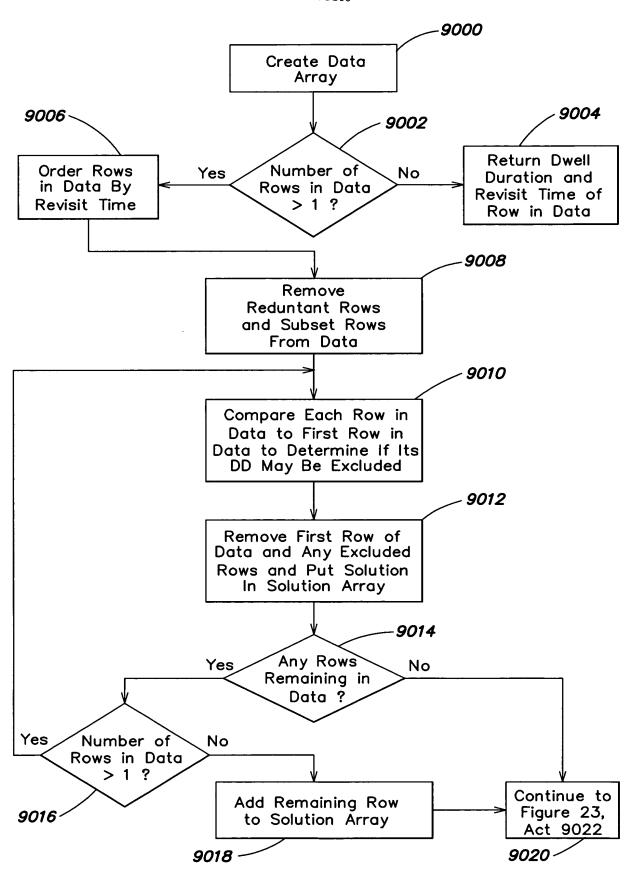


FIG. 22

Rules

GOUNALIS, Anthony J. Serial No.: 10/675,542

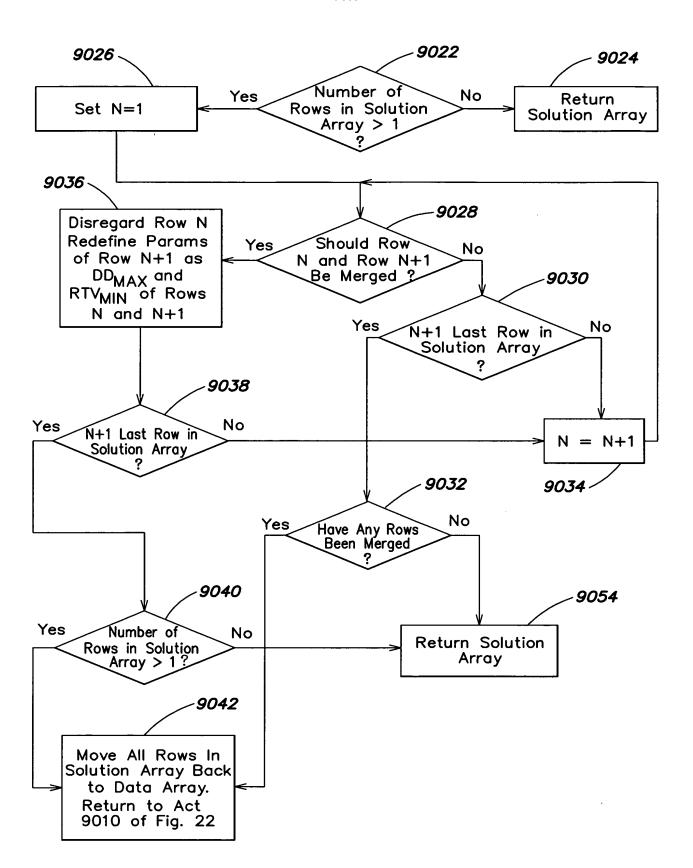


FIG. 23

GOUNALIS, Anthony J. Serial No.: 10/675,542

| | | | | | | | 9051 | — 9052 | | |
|------|---|------|-----|------|------|------|------|--------|--------|------|
| 9044 | | | RVT | 200 | 700 | 800 | 2000 | 2868 | | |
| | 1 | Data | EDT | 7 | 6 | Ξ | 19 | 17 | | |
| | | | MDT | Ļ | 7 | 2.3 | 3 | 3.05 | | |
| 9044 | | | | | | | 9048 | 9049 | - 9050 | |
| | 1 | | RVT | 200 | 700 | 800 | 1000 | 2000 | 2000 | 2868 |
| | | Data | EDT | 7 | 6 | 11 | 3.5 | 19 | 19 | 17 |
| | | | MDT | 1 | 2 | 2.3 | 0.5 | 3 | 3 | 3.05 |
| 9044 | | | | | | | | | | |
| | 1 | | RVT | 2868 | 2000 | 2000 | 500 | 700 | 800 | 1000 |
| | | Data | EDT | 17 | 19 | 19 | 7 | 6 | 11 | 3.5 |
| | | | MDT | 3.05 | 3 | 3 | - | 2 | 2.3 | 0.5 |

FIG. 24C

GOUNALIS, Anthony J. Serial No.: 10/675,542

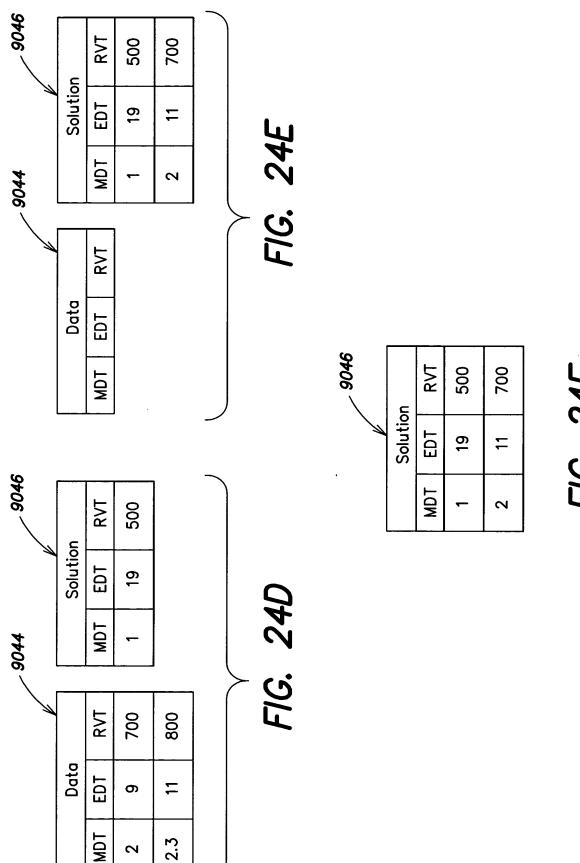


FIG. 24F

System And Method For Detection Of Emitter Signals Using Multiple Intercept Rules GOUNALIS, Anthony J.

Serial No.: 10/675,542 Docket No.: L0562.70038US00

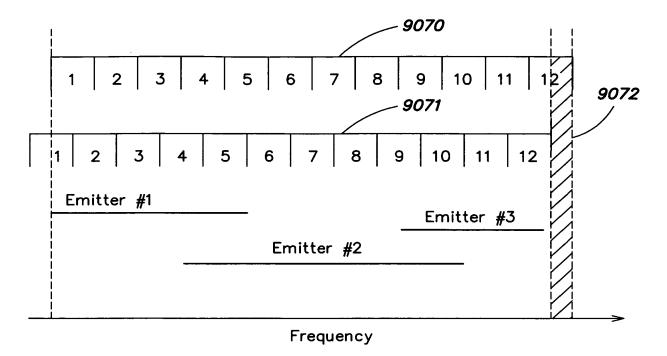


FIG. 25

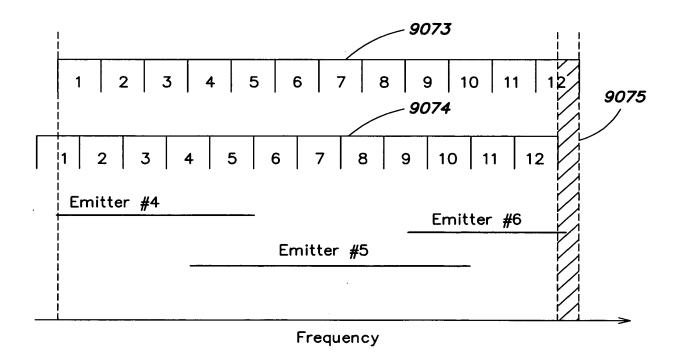
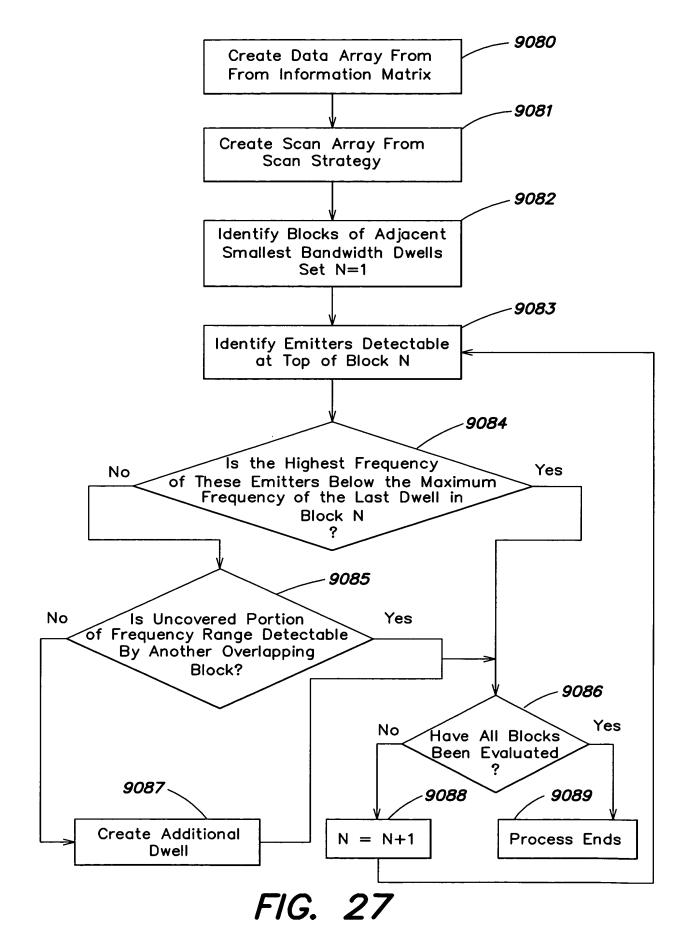


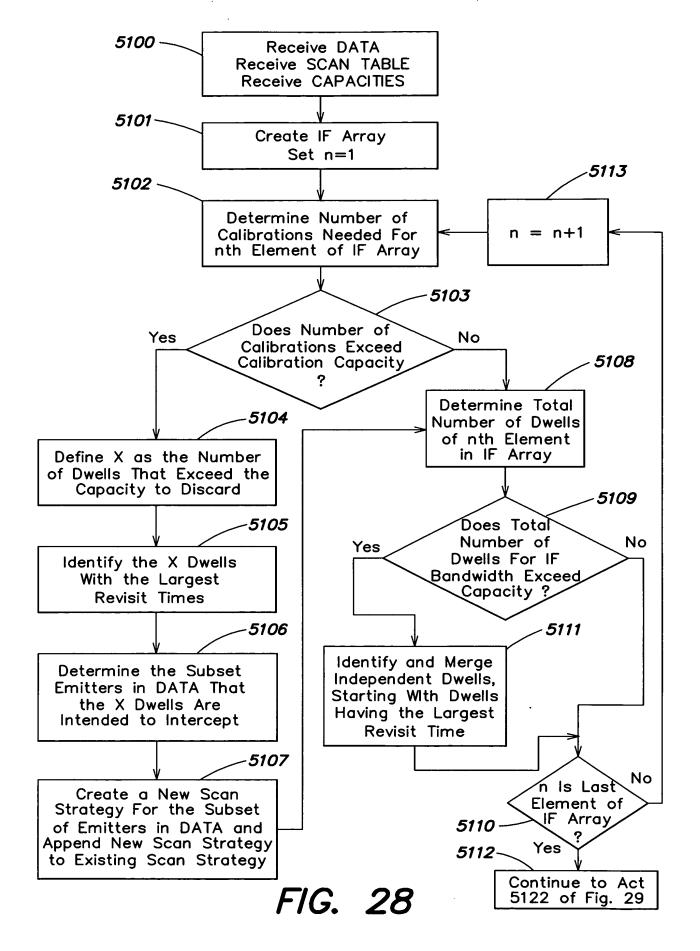
FIG. 26

System And Method For Detection Of Emitter Signals Using Multiple Intercept Rules GOUNALIS, Anthony J.

Serial No.: 10/675,542 Docket No.: L0562.70038US00



GOUNALIS, Anthony J. Serial No.: 10/675,542



System And Method For Detection Of Emitter Signals Using Multiple Intercept Rules GOUNALIS, Anthony J.

Serial No.: 10/675,542 Docket No.: L0562.70038US00

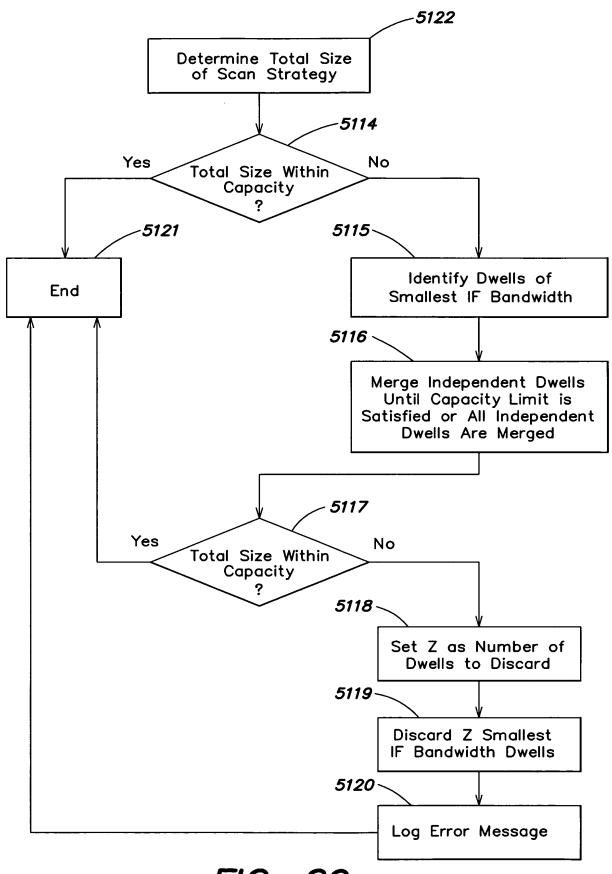
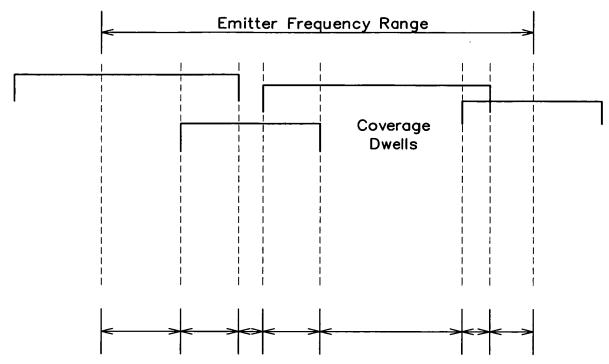


FIG. 29

System And Method For Detection Of Emitter Signals Using Multiple Intercept Rules GOUNALIS, Anthony J. Serial No.: 10/675,542



Frequency Ranges of Interest

FIG. 30

Rules GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

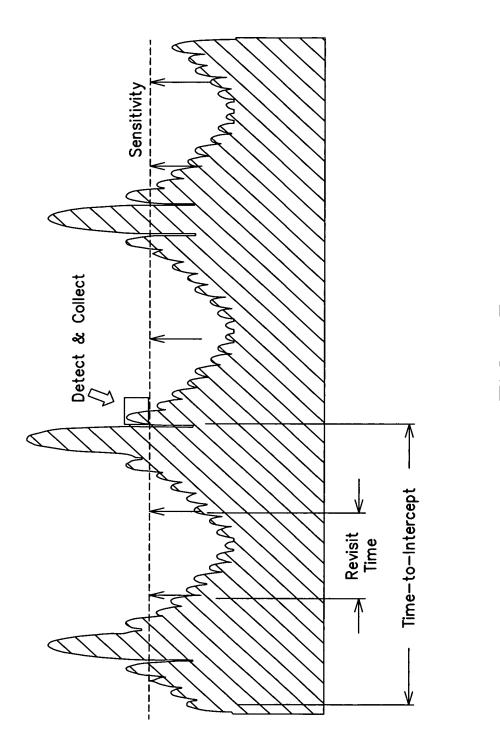


FIG. 31

Rules GOUNALIS, Anthony J. Serial No.: 10/675,542 Docket No.: L0562.70038US00

